

ECS Configuration Change Request

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Page(s)

1. Originator Linwood F. Moses	2. Log Date: 11/14/02	3. CCR #: 02-1004	4. Rev: -	5. Tel: x1112	6. Rm #: 2109A	7. Dept. RDEV
8. CCR Title: Deliver WU-FTP v. 2.6.2 as Test Executable to DAAC sites on ACG hosts running IRIX 6.5.x						
9. Originator Signature/Date <i>Linwood F. Moses 11/13/02</i>		10. Class <i>II</i>	11. Type: CCR	12. Need Date: 11/13/2002		
13. Office Manager Signature/Date <i>[Signature] 11/14/02</i>		14. Category of Change: Other		15. Priority: (If "Emergency" fill in Block 27). Emergency		
16. Documentation/Drawings Impacted (Review and submit checklist):		17. Schedule Impact:		18. CI(s) Affected: CSS, STMGT		
19. Release Affected by this Change: 6A		20. Date due to Customer:		21. Estimated Cost: None - Under 100K		
22. Source Reference: <input checked="" type="checkbox"/> NCR (attach) <input type="checkbox"/> Action Item <input type="checkbox"/> Tech Ref. <input type="checkbox"/> GSFC <input type="checkbox"/> Other: NCR 34512						
23. Problem: (use additional Sheets if necessary) A second WU-FTP Test Executable needs to be deployed to 1) support STMGT Pull Monitor Server custom code delivery, 2) Zip file binary compression functionality, and 3) log rotation capability via Unix cron job.						
24. Proposed Solution: (use additional sheets if necessary) Provide Test Executable to DAACs for installation of WU-FTP. See Additional sheet for checksum information.						
25. Alternate Solution: (use additional sheets if necessary) None.						
26. Consequences if Change(s) are not approved: (use additional sheets if necessary) The native FTP daemon will not support 1) changes to Pull Monitor custom code needed to resolve NSR ECSed34512, 2) zip binary compression features, and 3) log rotation capabilities.						
27. Justification for Emergency (If Block 15 is "Emergency"): FTP Daemon TE needs to be delivered ASAP to support GSFC.						
28. Site(s) Affected: <input type="checkbox"/> EDF <input type="checkbox"/> PVC <input checked="" type="checkbox"/> VATC <input checked="" type="checkbox"/> EDC <input checked="" type="checkbox"/> GSFC <input checked="" type="checkbox"/> LaRC <input checked="" type="checkbox"/> NSIDC <input type="checkbox"/> SMC <input type="checkbox"/> AK <input type="checkbox"/> JPL <input type="checkbox"/> EOC <input type="checkbox"/> IDG Test Cell <input type="checkbox"/> Other						
29. Board Comments:			30. Work Assigned To:		31. CCR Closed Date:	
32. EDF/SCDV CCB Chair (Sign/Date): <i>[Signature] 11/13/02</i>		Disposition: <input checked="" type="checkbox"/> Approved App/Com. <input type="checkbox"/> Disapproved <input type="checkbox"/> Withdraw <input type="checkbox"/> Fwd/ESDIS <input type="checkbox"/> ERB Fwd/ECS				
33. M&O CCB Chair (Sign/Date): <i>[Signature] 11/14/02</i>		Disposition: <input checked="" type="checkbox"/> Approved App/Com. <input type="checkbox"/> Disapproved <input type="checkbox"/> Withdraw <input type="checkbox"/> Fwd/ESDIS <input type="checkbox"/> ERB Fwd/ECS				
34. ECS CCB Chair (Sign/Date):		Disposition: <input type="checkbox"/> Approved App/Com. <input type="checkbox"/> Disapproved <input type="checkbox"/> Withdraw <input type="checkbox"/> Fwd/ESDIS <input type="checkbox"/> ERB Fwd/ESDIS				

 ORIGINAL

ADDITIONAL SHEET

CCR #: **02-1004** Rev: **—** Originator: L. Moses

Telephone: x1112 Office: 2109A

Title of Change: Deliver WU-FTPD v. 2.6.2 as Test Executable to DAAC sites on ACG hosts running IRIX 6.5.x

24. Con't.

Checksum	BlockSize	Filename
109847016	911360	fw_wu-ftp-2.6.2.tardist
2144003454	952320	fw_wu-ftp-2.6.2_conf3.tar

See TE installation instructions attached to this CCR.

CM01AJA00 Revised 8/2/02

ECS

 **ORIGINAL**

COTS Installation Instructions

Prerequisites

Estimated Installation Time: 15 minutes for a novice operator.

Disk Space Requirements: 4 MB.

Uninstall Instructions

N/A.

Installation Instructions

GSFC received the previous WU-FTPd Test Executable. The latest tar release of WU-FTPd for the SGI includes zip compression capability and scripts to implement log rotation capabilities for the FTP log via Unix cron. For GSFC to install the latest release of WU-FTP v2.6.2, perform the following steps below.

- Perform the second “cksum” command in step 3 to validate receipt of the latest released WU-FTP configuration file. (**fw_wu-ftpd-2.6.2_conf3.tar**)
- Perform steps 7 – 10.

All other DAAC sites should perform all steps starting with step 1 below.

These instructions will install IRIX WU-FTP v2.6.2 and set up an anonymous FTP account. Text in bold are user commands or text within a file and “↵” means press the enter/return key.

- 1) Login to the specific site host from the table shown below as root.

Site	Host Name	Subsystem	Host Function
EDC	e0acg11	DSS	APC Server
GSFC	g0acg01	DSS	APC Server
LaRC	l0acg02	DSS	APC Server
NSIDC	n0acg01	DSS	APC Server
VATC	t1acg04	DSS	APC Server
PVC	p0acg05	DSS	APC Server

- 2) Copy the WU-FTP tar files from the /dist/incoming directory into the “/var/tmp” directory.

3) Verify the checksum values for each tar file.

```
# cksum /var/tmp/fw_wu-ftp-2.6.2.tardist ↵  
109847016 911360 /var/tmp/fw_wu-ftp-2.6.2.tardist  
  
# cksum /var/tmp/fw_wu-ftp-2.6.2_conf3.tar ↵  
2144003454 952320 /var/tmp/fw_wu-ftp-2.6.2_conf3.tar
```

4) Install WU-ftp package

```
# inst -f /var/tmp/fw_wu-ftp-2.6.2.tardist ↵  
Inst> go  
  
Pre-installation check .. 8%  
Checking space requirements .. 16%  
Pre-installation check completed  
...  
  
Inst> quit ↵ (Remove this distribution)
```

Note: If conflicts occur with fw_socks5.server_sw.socks5, remove the fw_socks5.server_sw.socks5 package.

5) Remove empty "dist" file.

```
# rm /var/tmp/fw_wu-ftp-2.6.2.tardist ↵
```

6) Setup an anonymous FTP account and directory to allow users to obtain data via FTP on the primary ACM host (XXacg0X) from ECS. The directory structure created by steps A- R in this section may be completed. If completed, continue with Step 7. This update is required to support the upgrade to IRIX 6.5 and to improve logging so that automatic cleanup can be performed. Refer to the ECS Technical Directive "EDT 01-008 Anonymous FTP setup UPDATE 3" for more information.

Implementation: The following steps are designed to help set up an anonymous FTP account.

- A. Logon to the site specific host as root (or su to root)
- B. Create the anonymous FTP account in the passwd file.

ftp:*:997:999:anonymous FTP account:/user_pull/OPS/apc/PullDisk/user:/dev/null

IMPORTANT NOTE: Use the correct physical name of the directory on your host. This directory must match the directory path in the specified Pull Monitor configuration file. Substitute this directory path for the commands in the proceeding steps in this section.

- C. Create an anonymous FTP directory (if not already created):

```
# mkdir /user_pull/OPS/apc/PullDisk ↵
```

- D. Create the cache staging directory (if not already created):

```
# mkdir /user_pull/OPS/apc/PullDisk/cache ↵
```

- E. Set global access permission for the anonymous FTP directory tree:

```
# chmod -R 771 /user_pull/OPS/apc/PullDisk ↵  
# chown -R root.sys /datapool/OPS ↵
```

- F. Change directory to the ftp home directory and create the subdirectories used for FTP access (if not already created):

```
# cd /user_pull/OPS/apc/PullDisk ↵  
# mkdir user ↵  
# cd user ↵  
# mkdir etc bin ↵
```

- G. For the user directory, recursively set the group to the group that normally starts the ECS servers which is normally “cmshared” or “allmode”:

```
# chgrp -R cmshared /user_pull/OPS/apc/PullDisk/user ↵
```

NOTE: When an anonymous user first logs into an FTP session, they are placed in the user directory. If they execute an “ls” command, a “permission denied” error is displayed (since the directory permissions are set to 771). One must first “cd” to a valid directory (from the email notification) and then execute the “ls” command.

- H. Copy the “ls” executable to the bin directory and change permissions:

```
# cp /bin/ls /user_pull/OPS/apc/PullDisk/user/bin ↵  
# chmod 111 /user_pull/OPS/apc/PullDisk/user/bin/ls ↵
```

- I. Edit the ftp passwd file as follows. The /user_pull/OPS/apc/PullDisk/user/etc/passwd file should contain:

```
root:*:0:0:super-user:/:/dev/null
sys:*:4:0:system activity owner:/usr/adm:/dev/null
ftp:*:997:999:anonymous FTP account:/user_pull/OPS/apc/PullDisk/user:/dev/null
```

- J. Determine the group id (GID) of the cmshared (or replace with allmode if appropriate) group using the command:

```
# ypcat group | grep cmshared ↵
```

The following information should be displayed.

```
cmshared:*:1000
```

NOTE: This is only an example. Use your site's GID!

- K. Edit the /user_pull/OPS/apc/PullDisk/user/etc/group file should contain:

```
sys:*:0:
other:*:995:
guest:*:998:
anonymous:*:999:
cmshared:*:1000:
```

NOTE: This is only an example. Use your site's GID!

- L. Set restrictive permissions on the ftp passwd and group files:

```
# chmod 444 /user_pull/OPS/apc/PullDisk/user/etc/* ↵
```

- M. Add and manipulate device and library files for anonymous FTP as follows:

```
# cd /user_pull/OPS/apc/PullDisk/user ↵
# mkdir dev ↵
# /sbin/mknod /user_pull/OPS/apc/PullDisk/user/dev/zero c 37 0 ↵
# mkdir lib32 lib ↵
# cp /lib32/libc.so.1 lib32 ↵
# cp /lib32/rld lib32 ↵
# cp /lib/libc.so.1 lib ↵
```

```
# cp /lib/rld lib ↵
# chmod 555 dev lib32 lib bin etc ↵
# chgrp sys dev lib32 lib bin etc ↵
```

N. Add this entry to the file “/etc/aliases” to route mail sent to the user anonymous to go to the postmaster:

Anonymous: postmaster

O. To make the above alias take effect, run the command:

```
# newaliases ↵
```

P. To verify that the FTP daemon records successful and unsuccessful FTP logins and actions on files and directories during an FTP session, by edit the “/etc/inetd.conf” file and verify that the following line is present. If the line show below is not present, add it to the “/etc/inetd.conf” file.

```
ftp stream tcp nowait root /usr/freeware/wuftp/sbin/in.ftpd ftpd -l -a ↵
```

Q. After editing /etc/inetd.conf, restart inetd with the following command:

```
# /etc/killall -HUP inetd ↵
```

Note: The “ps -ef | grep inetd” command will NOT show an updated time stamp.

R. Create the file /etc/issue (if it does not already exist) with the following text:

```
*****
```

```
THIS U.S. GOVERNMENT COMPUTING SYSTEM IS FOR AUTHORIZED
USERS ONLY ANYONE USING IT IS SUBJECT TO MONITORING AND
RECORDING OF ALL KEYSTROKES WITHOUT FURTHER NOTICE. THIS
RECORD MAY BE PROVIDED AS EVIDENCE TO LAW ENFORCEMENT
OFFICIALS.
```

```
*****
```

7) Extract WU-ftp configuration tar file.

****Important:** Make sure you are in the \$FTPHOME directory before extracting the tar file!

```
# cd $FTPHOME ↵
# tar xvf /var/tmp/fw_wu-ftpd-2.6.2_conf3.tar ↵
```

```
# rm /var/tmp/fw_wu-ftp-2.6.2_conf3.tar ↵
```

8) Change permissions on wuftp log directory.

```
# cd /usr/freeware/wuftp ↵  
# chmod 775 log ↵  
# chgrp cmshared log ↵
```

9) Invoke the VI editor on the root cron file to include the entry needed to set up for log rotation.

```
# crontab -e ↵
```

10) Add the following line the root cron file. Please include the “#” pound sign.

```
#  
# Rotate WU-ftp xferlog  
1 0 * * * /usr/freeware/wuftp/bin/rotate_xferlog
```

This cron entry invokes the rotate_xferlog script at 12:00 AM every day. The script will back up a copy of the WU-FTP log for up to 7 days.

Type “:wq” to quit the editor and update the root cron file.

Custom Code Integration

The WU-FTP server’s logging capability will be utilized to allow the ECS Pull Monitor server the ability to delete granules from the “User Pull” directory once the granules have been downloaded.

Interrogation Checkout

Enter the following command from a machine other than the one on which WU-FTP was installed:

1) Start capturing command output to a temporary file:

```
# script /tmp/wucheckout
```

2) Login to the WU-FTP server:

```
# ftp <site specific host>
```

Refer to the table in step 1.

3) At the "Name" prompt, enter **control-C**.

4) Turn off output to the file, /tmp/wucheckout and look for the correct product version in the output:

```
# exit
```

```
# cat /tmp/wucheckout | grep 2.6.2 | awk '{print $6}' | cut -c4-8
```

The response should be: 2.6.2

5) Remove the command output file:

```
# rm /tmp/wucheckout
```

Back-Out Instructions

The steps in this section will remove the WU-FTP 2.6.2 daemon.

1. Login to the site specific host as root.
2. Determine the WU-FTP bundled software that needs to be removed.

```
# versions | grep fw_wu-ftp
```

Information similar to the example shown below should be displayed.

```
I fw_wu-ftp          10/16/2002  wu-ftp-2.6.2 WU FTP Daemon
I fw_wu-ftp.man      10/16/2002  wu-ftp-2.6.2 man pages
I fw_wu-ftp.man.relnotes 10/16/2002  wu-ftp-2.6.2 release notes
I fw_wu-ftp.man.wu-ftp 10/16/2002  wu-ftp-2.6.2 man pages
I fw_wu-ftp.sw       10/16/2002  wu-ftp-2.6.2 execution only env
I fw_wu-ftp.sw.wu-ftp 10/16/2002  wu-ftp-2.6.2 execution only env
```

3. Remove the packages listed in the example above.

```
# versions remove name fw_wu_ftp
```

NOTE: Do not remove the Anonymous FTP directory structure set up in section 7.3 Installation Instructions, step 6.

4. Restore ftp daemon entry in /etc/inetd.conf file

```
# ftp stream tcp nowait root /etc/wrappers/tcpd ftpd -l -l -l
```

5. After editing /etc/inetd.conf, restart inetd with the following command:

```
# /etc/killall -HUP inetd
```